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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------|-------------|---|---------------------|------------------|
| 10/670,061        | 09/24/2003  | William S. Eaton  | 200207971-1         | 5094             |
| 22879             | 7590        | 12/08/2009<br>HEWLETT-PACKARD COMPANY<br>Intellectual Property Administration<br>3404 E. Harmony Road<br>Mail Stop 35<br>FORT COLLINS, CO 80528 |                     |                  |
|                   |             | EXAMINER<br>GARCIA, GABRIEL I   |                     |                  |
|                   |             | ART UNIT<br>2625  |                     |                  |
|                   |             | PAPER NUMBER  |                     |                  |
| NOTIFICATION DATE |             | DELIVERY MODE   |                     |                  |
| 12/08/2009        |             | ELECTRONIC  |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM  
ipa.mail@hp.com  
laura.m.clark@hp.com

|                              |                                      |  |
|------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/670,061 | <b>Applicant(s)</b><br>EATON, WILLIAM S. |
|                              | <b>Examiner</b><br>GABRIEL I. GARCIA | <b>Art Unit</b><br>2625                  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 29 August 2009.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 8-12 and 20-24 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-4,7,13-16 and 19 is/are rejected.
- 7) Claim(s) 5-6 and 17-18 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/06)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

**Part III DETAILED ACTION**

1. This application has been examined. Claims 1-24 are pending in this application. Claims 8-12 and 20-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected group.

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4,7,13-16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Beck et al. (6,755,495).

With regard to claim 1, Beck et al. teaches a driver circuit (fig. 4) for driving simultaneously a variable number of firing resistors for a printhead (e.g. col. 2, lines 15-46,col. 3, lines 1-11) during a printing firing cycle (e.g. col. 5, lines 36-44), the driver circuit comprising: a drive circuit for supplying firing pulses for firing the variable number of firing resistors during the printing firing cycle (e.g. col. 3, lines 1-11 and col. 5, lines 36-44); a circuit for adjusting a magnitude of a voltage or a current of said drive signal during the printing firing cycle in dependence on the variable number of firing resistors

to be fired simultaneously in a given subset during the printing firing cycle (e.g. col. 3, lines 17-32, col. 5, lines 36-44 and col. 7, lines 11-17 and figs. 3-6, depicts how each primitive (50) fires one resistor (48), having multiple primitives each firing one resistor, therefore the printhead (40) is firing multiple resistors each time, see else figs. 3-7, depicts the printhead having different resistors and being controlled by adjusting the voltage or current to the resistors).

With regard to claim 2, Beck et al. teaches wherein said drive circuit is a voltage source, and said circuit adjusts a voltage magnitude of said drive signal col. 5, lines 36-44, see else figs. 4-7).

With regard to claim 3, Beck et al. teaches wherein said circuit adjusts the voltage magnitude in dependence on said variable number of firing resistors being simultaneously fired (e.g. col. 3, lines 17-32, col. 5, lines 36-44, see else figs. 4-7).

With regard to claims 4 and 9, Beck et al. teaches wherein said circuit provides an increased voltage magnitude for larger variable numbers and wherein said offset voltage is a monotonically increasing function of said variable number of firing resistors (e.g. col. 3, lines 17-32, as the number of resistor increases the more voltage is used, see else figs. 4-7).

With regard to claims 13-16 and 19, the limitations of claims 13-16 and 19 are covered by the limitations of claims 1-4 and 7 above.

**Conclusion**

3. Claims 5-6 and 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record does not teach the limitations as recited in claims 5-6 and 17-18 in combination with the features of the independent claim.
  
4. With regard to Applicant's argument that Beck only fires a single firing resistor at a given time, not a variable number of firing resistors simultaneously. Examiner disagrees with Applicant's conclusion. Applicant has only taken a portion of the specification to indicate that only one resistor is fire at any given time. However, Applicant took the part of the specification that describes the firing of only one resistor within one primitive (see fig. 3). Col. 7, lines 11-17 describe how one resistor for each primitive is fired. Else, figs. 3-6, depicts how each primitive (50) fires one resistor (48), having multiple primitives each firing one resistor, therefore the printhead (40) is firing multiple resistors each time, see else figs. 3-7, depicts the printhead having different resistors and being controlled by adjusting the voltage or current to the resistors.
  
5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabriel I. Garcia whose telephone number is (571) 272-7434. The Examiner can normally be reached Monday-Thursday from 7:30 AM-6:00 PM. The fax phone number for this group is (571) 273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (571) 272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call

800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2600.

/Gabriel I Garcia/

Primary Examiner, Art Unit 2625

**Gabriel I. Garcia  
Primary Examiner  
November 30, 2009**